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July 18, 1995

Office of the Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

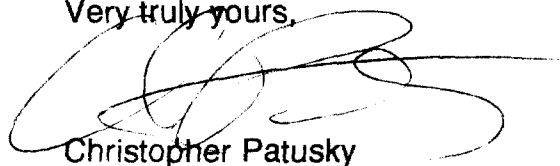
Re: Comments of Mahon & Patusky, Chartered to In the Matter
Amendment of the Commission's Rules Concerning Low Power
Radio and Automated Maritime Telecommunications System
Operations in the 216-217 MHz Band -- RM-7784

Dear Secretary:

Please find enclosed an original and nine copies of the Comments of
Mahon & Patusky, Chartered in the matter referenced above.

Please let me know if you have any questions.

Very truly yours,



Christopher Patusky

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
DEPARTMENT OF COMMERCE

In the Matter of Amendment of the Commission's)
Rules Concerning Low Power Radio and Automated) **RM-7784**
Maritime Telecommunications Systems Operation)
in the 216-217 MHz Band)

DOCKET FILE COPY ORIGINAL

COMMENTS OF MAHON & PATUSKY, CHARTERED

Mahon & Patusky, Chartered ("MPC") respectfully files these Comments on behalf of a multinational corporation that manufactures high-performance electronic devices and that carries out an active research and development program in the field of auditory assistance devices. MPC believes that auditory assistance technology is on the cusp of a major breakthrough. Within two years there will be available on the world market advanced auditory assistance devices that offer high-fidelity sound, clear discrimination from background noise, and near invisibility to the casual observer. The laws of physics and constraints on the technology require that these advanced auditory assistance devices operate in the range of 400 MHz. Accordingly, while MPC applauds the Commission's creation of a new frequency band for low power radio auditory assistance devices in the 216-217 MHz band, we believe it is essential that the Commission simultaneously begin planning for the next generation of advanced auditory assistance devices in the 400 MHz range.

**I. THE PUBLIC INTEREST IN RADIO SPECTRUM FOR
AUDITORY ASSISTANCE DEVICES REQUIRES
ALLOCATION BEYOND 216-217 MHz**

Section 2 of the Communications Act of 1934, as amended, states that the Federal Communications Commission's purpose is "to make available, so far as possible, *to all the people* of the United States," an efficient and effective communications system using radio and wire technology.¹ At least 1 in 8 Americans -- nearly 30 million persons total--cannot reliably follow even face-to-face aural communications in a typical everyday noise-filled environment without the aid of an auditory assistance device.² This already sizable portion of our population is poised for rapid growth as tens of millions of "baby boomers" approach and enter their senior years. Recent breakthroughs in auditory assistance technology now permit normal high-fidelity hearing for all Americans, albeit with the use of a small portion of the radio spectrum. It is incumbent upon the Commission, as mandated by Congress in Section 2 of the Communications Act, to accommodate these tens of millions of Americans with specific frequency allocations.

While the action proposed in this rulemaking is a good first step, the Commission should be aware that an allocation in the 400 MHz region is needed for reasons of reliability and range of audible frequency that cannot be ensured by the use of the 216-217 MHz. This companion allocation will ensure that the radio

¹ Codified at 47 U.S.C. §151 (emphasis added).

² "National Strategic Research Plan for Hearing and Hearing Impairment and Voice and Voice Disorders," National Institute on Deafness and Other Communication Disorders, U.S. Department of Health and Human Services, at 5 (1992).

spectrum is being used to meet the needs of all Americans, not only those with unimpaired hearing.

One of the key powers of the Commission, specified by Congress in Section 303 of the Communications Act, is to "generally encourage the larger and more effective use of radio in the public interest."³ The FCC first defined the criteria as to whether a frequency allocation was in the public interest in 1945, and has remained true to these criteria since that time.⁴ The "Significant Factors" identified by the FCC for determining that a new frequency allocation was in the public interest were:

- (a) The dependence of the service on radio rather than live wire lines;
- (b) The probable number of people who will receive benefits from the service;
- (c) The relative social and economic importance of the service, including the safety of life and protection of property factors;
- (d) The probability of practical establishment of the service and the degree of public support which it is likely to receive;
- (e) The degree to which the service should be made available to the public, that is, whether on a limited scale or on an extended competitive scale; and
- (f) When it is proposed to shift a service from its present location in the spectrum, data should be presented showing the feasibility and the cost of the shift, particularly with respect to the technical, economic and other considerations involved, and the length of time and manner for completing the shift.⁵

³ Codified at 47 U.S.C. §303(g).

⁴ "Spectrum Management Policy in the United States: An Historical Account," FCC Office of Plans and Policy at 44-46 (1985).

⁵ Id., at Appendix A.

The FCC has also long identified the technical factors that it deems relevant to a public interest determination. These factors are essentially that the frequency bands, bandwidths, field intensities and interference criteria are all the most technically appropriate for the service to be provided.⁶

Based upon the Commission's above-stated criteria, it is abundantly clear that new frequency allocations for current and next generation auditory assistance devices are in the public interest and that it is incumbent upon the FCC both to provide an allocation in the 216-217 MHz band and to commence a further allocation proceeding for advanced auditory assistance devices in the 400 MHz range:

(a) Dependence on Radio. Radio rather than wire is essential when referring to auditory assistance devices because of the obvious mobility associated with personal communications. While the 216-217 MHz allocation is a good first step, it is structured as more of a fixed-place auditory assistance system whereas what is needed is an advanced "go anywhere" system in the 400 MHz range.

(b) Number of People. As noted above, tens of millions of people require auditory assistance devices. Indeed, it is unlikely that there is any demographic group of greater size that has as much need for a specific frequency allocation and has, as of yet, not received one. While the 216-217 MHz allocation will help begin to remedy this deficiency, the Phonic-ear type of devices are too observable and of too limited fidelity to be used

⁶ Id.

by many tens of millions of people who require an auditory assistance device. There can be no doubt that a truly discrete high-fidelity advanced auditory assistance device, which must operate with greater bandwidths around 400 MHz, would find at least 30 million people as likely users.

(c) Social and Economic Importance. There is tremendous social and economic importance to providing our own citizenry with a decent ability to hear. Satisfaction of this elementary need should take precedence over other spectrum uses. This importance has been enshrined by Congress in the Americans with Disabilities Act of 1990.⁷ Impatient with the Commission's progress in this area, Congress is considering at least one bill specifically urging the FCC to make allocations for auditory assistance devices.⁸ The limited capability 216-217 MHz devices are a needed tourniquet for stalling the huge social and economic drain caused by hearing impairment. But tourniquets are not long-term cures, and only a higher technology personalized advanced auditory assistance device, operating around 400 MHz, can truly honor the social and economic importance of the hard-of-hearing public.

(d) Practicality of Service. Auditory assistance device allocations will certainly be widely used. The combined buying power of tens of millions

⁷ See 42 U.S.C. §12101(a) (6) ("Census data, national polls, and other studies have documented that people with disabilities, as a group, occupy an inferior status in our society, and are severely disadvantaged socially, vocationally, economically, and educationally") and §12101 (b) ("It is the purpose of the chapter--(1) to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities.")

of Americans ensures that manufacturers will bring both limited capability 216-217 MHz devices as well as advanced 400 MHz devices to the marketplace.

- (e) Public Availability. The Notice of Proposed Rulemaking describes a metropolitan-area based licensing scheme for ensuring competitive provision of auditory assistance devices. MPC believes that while such an approach may be workable for fixed-location type 216-217 MHz devices, that nationwide licensing will be needed for advanced technology auditory assistance devices operating around 400 MHz.
- (f) Affect on Other Services. The Notice of Proposed Rulemaking appears to have resolved in a reasonable manner all issues involving the transition of the maritime band to use by low power radio devices. However, a further Notice of Proposed Rulemaking is needed to prepare a portion of the radio spectrum in the neighborhood of 400 MHz for advanced auditory assistance devices.

Technical Spectrum Suitability. With regard to technical factors relevant to the public interest, a 400 MHz region allocation of at least four MHz is needed for advanced auditory assistance devices. The main rationale for this allocation is to provide dynamic auditory assistance with the full audio fidelity to which people were accustomed prior to their loss of hearing.

⁸ H.R. 1869, 104th Cong., 1st Sess. §14 (1995).

In summary, the Commission's proposal is fully consistent with the public interest criteria for allocating the frequencies, but it does not go far enough. Unless followed up with a companion advanced auditory assistance device allocation, tens of millions of Americans will be left hanging onto obsolete technology while superior devices are unavailable due to lack of an appropriate spectrum allocation. Such an outcome is inconsistent with the mandate of the Communications Act. Instead, the Commission should move swiftly to both adopt as final the 216-217 MHz proposal and commence a further notice of proposed rulemaking for an advanced auditory assistance device service.

II. WHY A 400 MHz-REGION ADVANCED AUDITORY ASSISTANCE DEVICE ALLOCATION SHOULD BE LINKED TO THE CURRENT PROCEEDING

MPC believes that an advanced auditory assistance device allocation should be linked to the current proceeding so as to minimize the administrative costs and delay of establishing the new allocation. The Commission's staff has clearly done an admirable job in creating the low power radio service out of the maritime channel in a brief period of time. The staff has also benefited from the record compiled in this proceeding and the hard-of-hearing public eagerly awaits its positive outcome. With this positive momentum established, the most administratively effective course of action is to adopt a Report and Order establishing the 216-217 MHz allocation while commencing a Further Notice of Proposed Rulemaking concerning a 400 MHz region allocation for advanced auditory assistance devices. In this manner the public can fully benefit from the expertise accumulated by the Commission's staff.

MPC also believes that linking a new advanced auditory assistance device rulemaking to this proceeding will help to minimize public confusion over the direction of technology, and will help to show responsiveness to congressional requests for action. A Report and Further Notice of Proposed Rulemaking can clearly explain that the Commission recognizes that the 216-217 MHz allocation is only an interim solution to the radio technology requirements of America's hearing-impaired. In this manner, the 216-217 MHz allocation can be explained as an expeditious first-step, more appropriate in some usage situations than others. A Report and Further Notice of Proposed Rulemaking can point out that the Commission is simultaneously enabling through regulatory action auditory assistance technology which is available in 1995 while paving the way for the next generation of advanced auditory assistance technology to be available by 1997. The Commission can through this approach facilitate the commercial auditory assistance marketplace, provide a reasonable set of expectations to millions of consumers, and be fully responsive to the Communications Act's mandate to "encourage the larger and more effective use of radio in the public interest."⁹

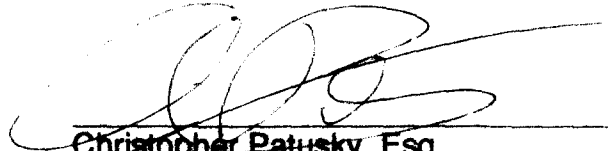
III. CONCLUSION

Wherefore, for all of the reasons stated above, MPC urges the Commission to expeditiously adopt the 216-217 MHz allocation proposed as part of a simultaneous action that also commences a new 400 MHz-region rulemaking into the establishment of an advanced auditory assistance device service. In this way the Commission will be both meeting the urgent needs of millions of Americans for

⁹ Codified at 47 U.S.C. §303(g).

low power radio devices, while also paving the way to empower tens of millions of people, both young and aging, with the technology they need to fully experience the auditory world in which we live.

Respectfully Submitted,

A handwritten signature in black ink, appearing to be 'CP', written over a horizontal line.

Christopher Patusky, Esq.
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